

European Red Mite

Pest Fact Sheet 6

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Introduction

The European red mite (*Panonychus ulmi*) is a European native that was first discovered in the U.S. in 1911. Since then, this non-insect has become one of the most important fruit pests in the U.S. and Canada. Undersized fruits, foliage loss, and weakened fruit buds result from its injury.

Description

Eggs of the European red mite are bright red to orange and spherical with a stalk as long as the egg. They can be found on the twigs, leaves, and branches of host plants. The newly hatched young are brownish-red six-legged larvae. These larvae gradually change to 8-legged nymphs. Adult females are bright red with long spines and white spots, elliptical in shape, and about $\frac{1}{75}$ long.

Life Cycle

The European red mite overwinters in the egg stage. Hatching occurs in early spring, usually during the pink stage.

The newly hatched young immediately starts feeding on unfolding leaves by sucking out the juices from the leaves. Damage can be found in the form of spotting on leaves, and if severe infestations occur, the whole tree looks bronzed. The larvae go through two additional stages before becoming adults.

The adult stage lasts for about 19 days (varies with temperature) in which time females lay on average 20 eggs. Egg development is uninterrupted and a new generation begins immediately. There are probably six to eight generations each year in New Hampshire.

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Adult European red mites. Credit: Grzegorz (Greg) Krawczyk, Penn State College of Agricultural Sciences.

The European red mite is one of the most important fruit pests in the U.S.



European red mite eggs on a branch. Credit: Alan T. Eaton.

Did You Know?

Damage can be found in the form of spotting on leaves, and if severe infestations occur, the whole tree looks bronzed.

Management

IPM Strategies:

- Biological Control There is a predaceous mite, *Typhlodromus pyri*,
 that has shown to successfully control populations of European red mite
 in commercial apple orchards. The brown lacewing also is an effective
 predator, but is not always present.
- Monitoring Check the undersides of leaves for mites, their eggs, and
 webbing. Look for plant damage such as bronzed or yellowed leaves. The
 Mew England Tree Fruit Management Guide describes the leaf counting
 method, and the thresholds for treatment.
- Cultural Control Dusty, warm conditions often lead to mite outbreaks. If possible, supply irrigation water to stressed trees.
- Chemical Spider mites frequently become a bigger problem after applying insecticides because some insecticides kill the mites' natural enemies. Whenever possible, avoid using pesticides that are known to trigger mite outbreaks.

Refer to the <u>New England Tree Fruit Management Guide</u> or consult your county Agricultural Field Specialist for specific pesticide recommendations.

Summary

Table 1 summarizes key information on the European red mite.

Table 1: Summary

| Summary Table | | | |
|----------------------------------|----------------------------|--|--|
| Damaging Stage | Larva, nymph, and adult | | |
| Part of Plant Attacked | Developing buds and leaves | | |
| Overwintering Stage | Egg | | |
| Number of Generations per Year | 4-9 | | |
| Time of Year When Damage Is Done | May-August | | |

Notes: Refer to the text for more information about this pest.

Stop! Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to New Hampshire regulations.

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